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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q63652

Yoshihito ASAO, et al.

Allowed: May 21, 2003

Appln. No.: 09/838,252

Group Art Unit: 2834

Confirmation No.: 9317

Examiner: Thanh LAM

Filed: April 20, 2001

For: AUTOMOTIVE ALTERNATOR

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98**

MAIL STOP ISSUE FEE

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Match & Return

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith.

The present Information Disclosure Statement is being filed after either a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution in the application (whichever is earlier), but before payment of the Issue Fee, and therefore Applicant is submitting herewith a check for the fee of \$180.00 under 37 C.F.R. § 1.17(p), and a Statement Under 37 C.F.R. § 1.97(e). The USPTO is directed and authorized to charge all required fees, except

INFORMATION DISCLOSURE STATEMENT
U.S. Appln. No.: 09/838,252

for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses herewith a copy of a Communication from a foreign patent office in a counterpart application citing such documents, together with an English-language version (if not already included) of that portion of the Communication indicating the degree of relevance found by the foreign patent office.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,



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WASHINGTON OFFICE



23373

PATENT TRADEMARK OFFICE

Date: June 13, 2003

Attorney Docket No.: Q63652



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STATEMENT UNDER 37 C.F.R. § 1.97(e)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The undersigned hereby states, upon information and belief:

That each item of information contained in the Information Disclosure Statement filed concurrently herewith was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of said Information Disclosure Statement.

Respectfully submitted,

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WASHINGTON OFFICE



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PATENT TRADEMARK OFFICE

Date: June 13, 2003

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(Translation)

Dispatch Number: 9-5-2003-015753066

Dispatch Date: April 30, 2003

Due Date for Submission: June 30, 2003

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Patent Office

Notification of Submission of Argument

Applicant

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Seoul

Application Number: 10-2001-0035327

Title of the Invention: AC generator for vehicle

As a result of the examination, this application should be refused for the reasons for refusal described below. Under the provision of Patent Law Section 63, this notification was issued, and if the applicant has any argument or needs to make any amendment, such argument or amendment should be submitted by the due date for submission described above. (Regarding the due date for submission described above, it is possible to apply for one-month extension every time, and no additional notification will be issued of approval of the application for the period extension.)

[Reasons]

The invention as described in all the claims of the subject application should not be granted a patent under the provision of Patent Law Section 29(2), because it could have easily been made prior to the filing of the subject application by those who have common knowledge in the technical field to which the invention belongs on the basis of what are pointed out below.

With regard to the subject application, the description of the scope of claims is deficient as pointed out below, and hence the application should not be granted a patent on the grounds that it does not satisfy the requirements under the provision of Patent Law Section 42(4).

[Note]

1. In the claim 1, the structural arrangement of a flow channel as an essential constituent element of the invention concerned is

unclear. That is, no clear description is made regarding where the flow channel is formed and how the flow channel is coupled to other constituent elements. (Patent Law Section 42(4))

2. Claimed in the claim 1 as the gist of the invention concerned is a technique for an AC generator for a vehicle including a rotor and a stator, in which: a stator winding to be inserted into a stator slot forms a coil end group outside a slot on the end surface side of a stator core; a predetermined region of an outer periphery of the coil end forms a smooth heat-conduction surface in a circumferential direction; and a flow channel for a liquid coolant that absorbs the heat generated from the stator is provided. However, disclosed in the cited invention 1 (KR 1998-086538 A) attached hereto (see page 6 etc.) is a technique for an automotive alternator, in which a terminal end of a stator coil etc. is formed into a flattened shape to thereby expand a heat-conduction region. Also, disclosed in the cited invention 2 (JP 06-296348 A) is a technique for an AC generator for a vehicle, in which a coolant channel is provided to improve cooling efficiency. Accordingly, it is considered that the technique of the invention concerned can easily be made by those skilled in the art by merely combining the above-mentioned cited inventions 1 and 2.

3. Claimed in the claims 2 and 3 are techniques in which: the flow channel is formed of a thermal conductive material into a tube in a bracket; and thermal conductive resins are filled between the

coil end group and the bracket so as to be in contact with a thermal conductive surface. However, disclosed in the above-mentioned cited invention 2 is a technique in which the coolant channel is provided in an inside space of the bracket as a tube excellent in thermal conduction and fixed with a thermal conductive filler. Accordingly, it is considered that the invention as described in claims 1 and 2 can also easily be made by those skilled in the art by merely combining the above-mentioned cited inventions 1 and 2. (As to Notes 2 and 3, Patent Law Section 29(2) applies.)

[Attachment]

Attachment 1: Cited invention 1 (KR 1998-086538 A, laid open on December 5, 1998)

Attachment 2: Cited invention 2 (JP 06-296348 A, laid open on October 21, 1994)

April 30, 2003

Fourth Examination Department, Patent Office

Examiner

